

# Main\_Program [OB1]

## Main\_Program Properties

### General

Name	Main_Program	Number	1	Type	OB
Language	LAD	Numbering	Manual		

### Information

Title	"Main Program Sweep (Cycle)"	Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Temp		
OB1_EV_CLASS	Byte	
OB1_SCAN_1	Byte	
OB1_PRIORITY	Byte	
OB1_OB_NUMBR	Byte	
OB1_RESERVED_1	Byte	
OB1_RESERVED_2	Byte	
OB1_PREV_CYCLE	Int	
OB1_MIN_CYCLE	Int	
OB1_MAX_CYCLE	Int	
OB1_DATE_TIME	Date_And_Time	
Constant		

## Network 1: SP7-3

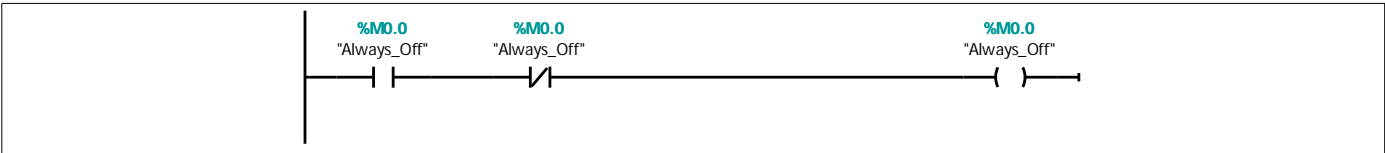
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Problem SP7-3 Day Tank Level Control with Alarms

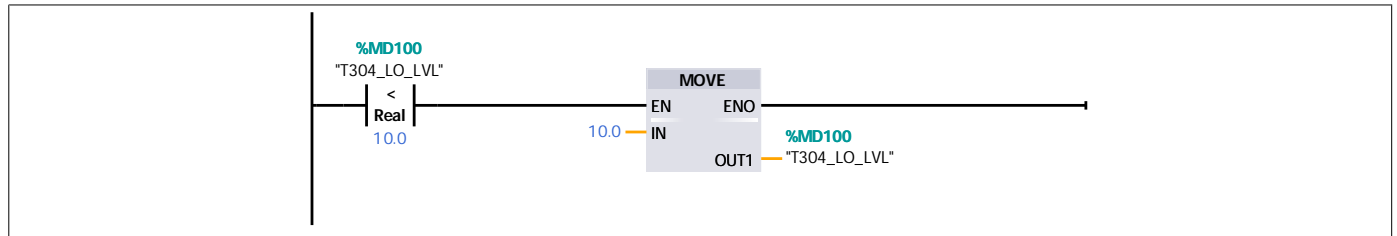
This part from SP7-2



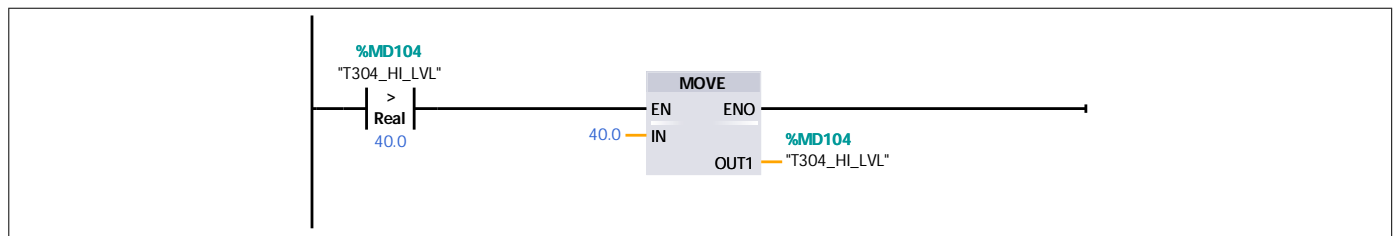
## Network 2: Always off



### Network 3: Make sure minimum tank level within bounds.

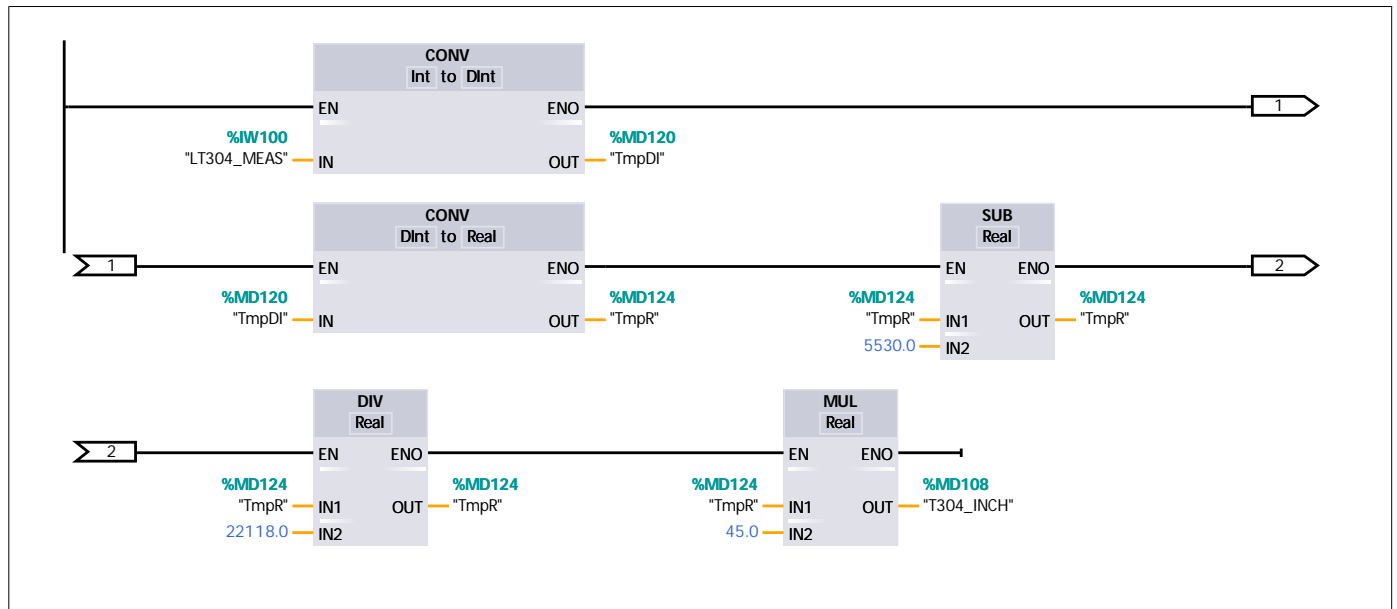


### Network 4: Make sure maximum tank level within bounds.



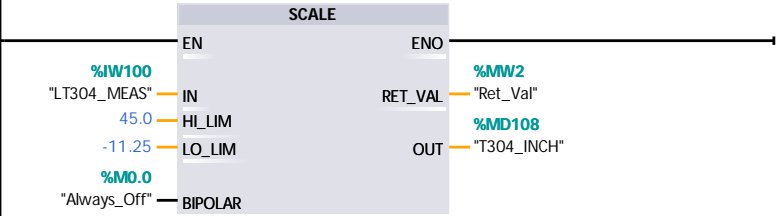
### Network 5: Convert level measurement with comp blocks

Convert level measurement to level in inches.  
Uses individual computation blocks.



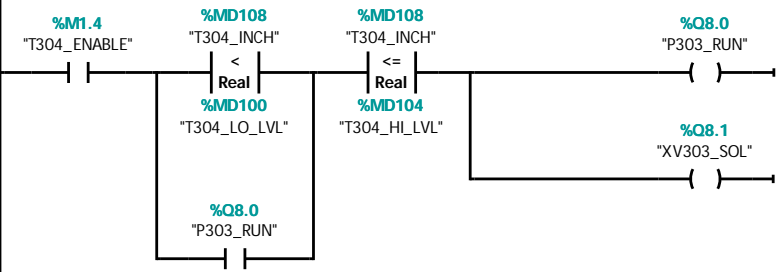
### Network 6: Convert level measurement with SCALE

Convert level measurement to level in inches.  
Uses SCALE block. Note that the lo\_lim input is 25% lower than zero level to account for this block assuming the minimum value of the analog in is zero rather than the 5530 (which corresponds to 4 mA).



Network 7: Tank pump control

Tank control - on when level low, off when level high.



Network 8: \*\*\*\*\* Section for SP7-3 \*\*\*\*\*

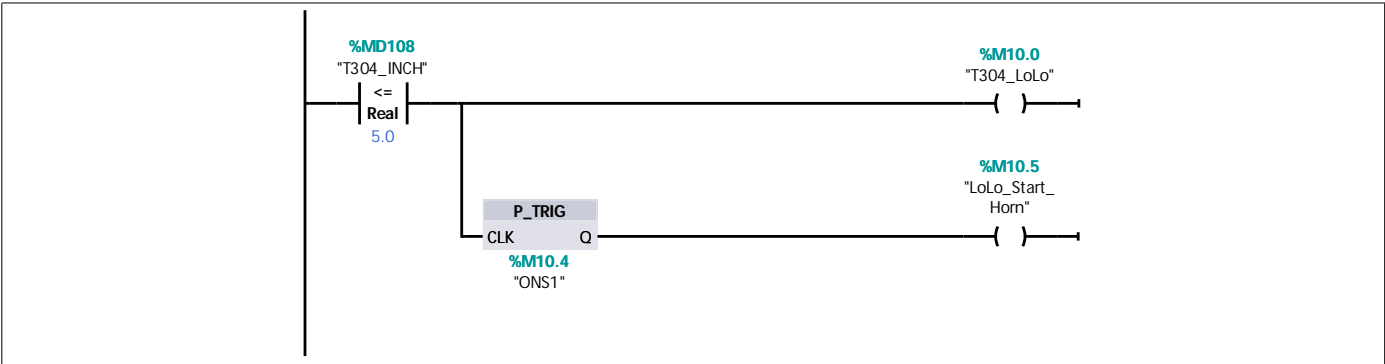
Additional internal memory:  
Tag Address  
T304\_Lo\_Alm MD112 REAL Low alarm value  
T304\_Hi\_Alm MD116 REAL High alarm value  
T304\_LoLo M10.0 BOOL On when low-low alarm  
T304\_Lo M10.1 BOOL On when low alarm  
T304\_HiHi M10.2 BOOL On when high-high alarm  
T304\_Hi M10.3 BOOL On when high alarm  
ONS1 M10.4 BOOL Transitional bit for low-low  
LoLo\_Start\_Horn M10.5 BOOL Horn start for low-low  
ONS2 M10.6 BOOL Transitional bit for high-high  
HiHi\_Start\_Horn M10.7 BOOL Horn start for high-high  
Flash\_Tmr1 DB1 TON\_SFB First tmr for low-low and hi-hi flash light  
Flash\_Tmr2 DB2 TON\_SFB Secnd tmr for low-low and hi-hi flash light

Calculate alarm level values



### Network 9: Low-low alarm detection

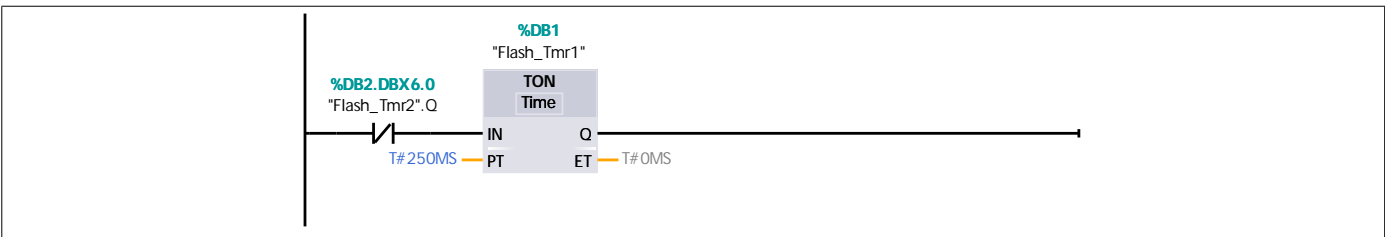
Low-low alarm detection and transition to start horn.



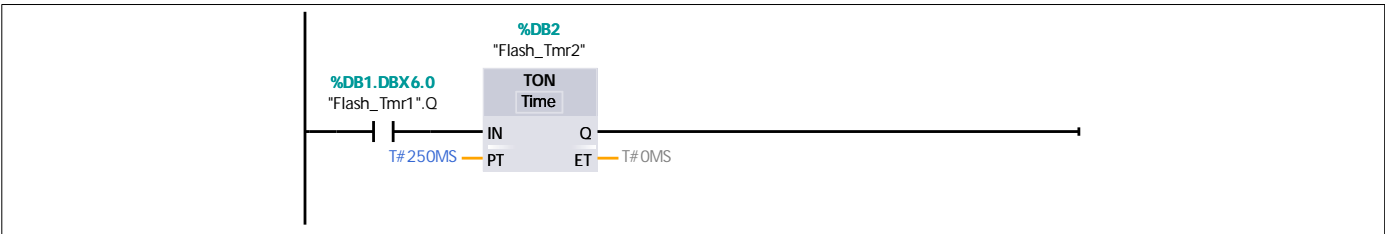
### Network 10: Low alarm detection



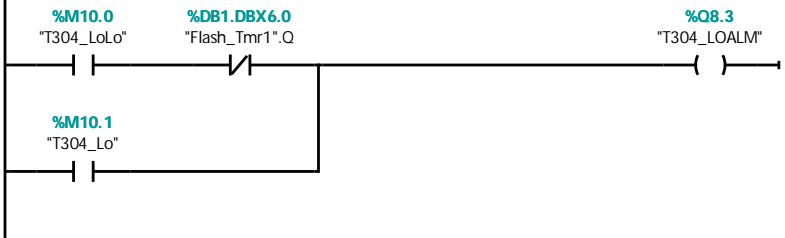
### Network 11: Flashing light timers for low-low and hi-hi



### Network 12:

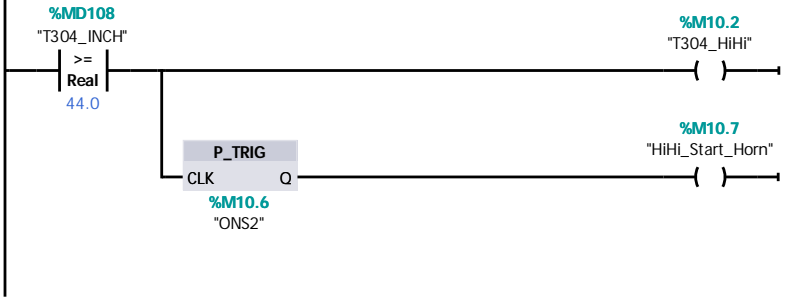


### Network 13: Low and low-low alarm indication

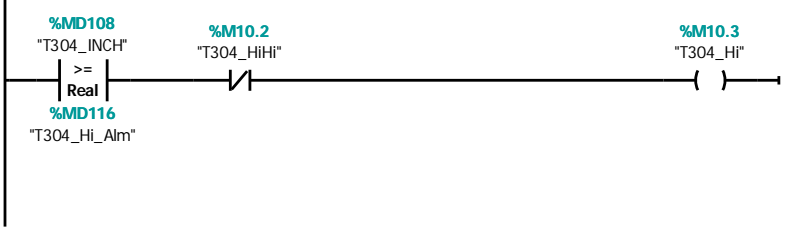


**Network 14: High-high alarm**

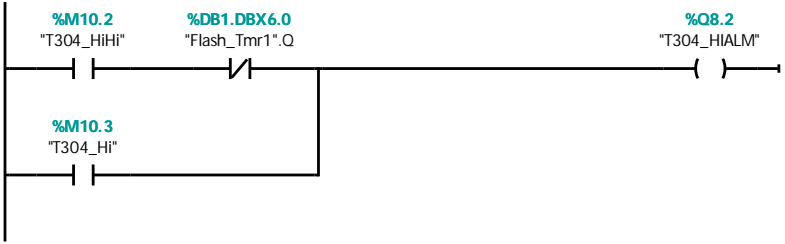
High-high alarm detection and transition to start horn.



**Network 15: High alarm detection.**



**Network 16: High and high-high indication**



**Network 17: Alarm horn**

Low-low and high-high transitions turn it on

